JST30F-800CW 30A TRIAC

Rev.A.1.1

The JST30F-800CW triac is suitable for general purpose AC switching. It can be used as an ON/OFF function in applications such as heating regulation, induction motor starting circuits, for phase control operation in light dimmers, motor speed controllers. JST30F-800CW snubberless triac is especially recommended for use on inductive loads. By using an external plastic package, JST30F-800CW provides a rated insulation voltage of 2000 VRMS, complying with UL standards (File ref: E252906). Package TO-220F is RoHS compliant.

Parameter	Symbol	Value	Unit
Storage junction temperature range	T_{stg}	-40-150	
Operating junction temperature range	T_j	-40-125	
Repetitive peak off-state voltage (T_j=25)	V_{DRM}	800	V
Repetitive peak reverse voltage (T_j=25)	V_{RRM}	800	V
RMS on-state current (T_C 071)	$I_{T(RMS)}$	30	A
Non repetitive surge peak on-state current (full cycle , t_p=20ms , T_j=25)	I_{TSM}	300	A
Non repetitive surge peak on-state current (full cycle , t_p=16.6ms , T_j=25)		330	
I^2t value for fusing (t_p=10ms , T_j=25)	I		

Average gate power dissipation (T_j=125)	$P_{G(AV)}$	0.5	W
Peak gate power	P_{GM}	10	W
Peak pulse voltage (T_j=25 ; non-repetitive,off-state;FIG.7)	V_{pp}	2.5	kV

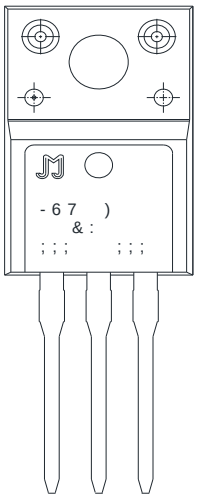
(T_j=25 unless otherwise specified)

Symbol	Test Condition	Quadrant	Value		Unit
I_{GT}	V_D =12V R_L =33Ω	- -	MAX.	35	mA
V_{GT}		- -	MAX.	1.3	V
V_{GD}	V_D =V_{DRM} T_j =125 R_L =3.3kΩ	- -	MIN.	0.15	V
I_L	I_G =1.2I_{GT}	-	MAX.	70	mA
				80	
I_H	I_T =500mA		MAX.	50	mA
dV/dt	V_D=540V Gate Open T_j =125		MIN.	1200	V/μs
(dI/dt)c	(dV/dt)c=20V/μs T_j=125		MIN.	15	A/ms
t_{on}	I_G=40mA I_A=200mA I_R=20mA T_j=25		TYP.	7	μs
t_{off}				50	

Symbol	Parameter		Value(MAX.)	Unit
V_{TM}	I_{TM} =42A t_p=380μs	T_j=25	1 .5	V
V_{TO}	Threshold voltage	T_j=125	0.72	V
R_D	Dynamic resistance	T_j=125	25	mΩ
I_{DRM}	@ V_D =V_{DRM} V_R =V_{RRM}	T_j=25	5	μA

J ST 30 F -800 CW

- J: JieJie Microelectronics Co., Ltd.
- ST: Triacs
- 30: $I_{T(RMS)}$:30A
- F: F:TO-220F(Ins)
- -800: 800:V_{DRM} /V_{RRM} 1 800V
- CW: CW:I_{GT1-3} 0 35mA



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Year

Month

FIG.1: Maximum power dissipation versus RMS on-state current

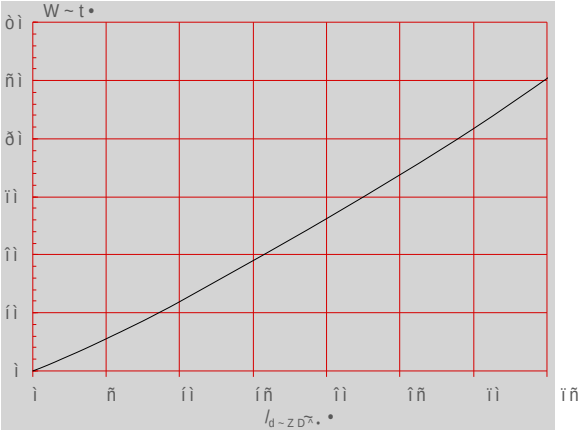
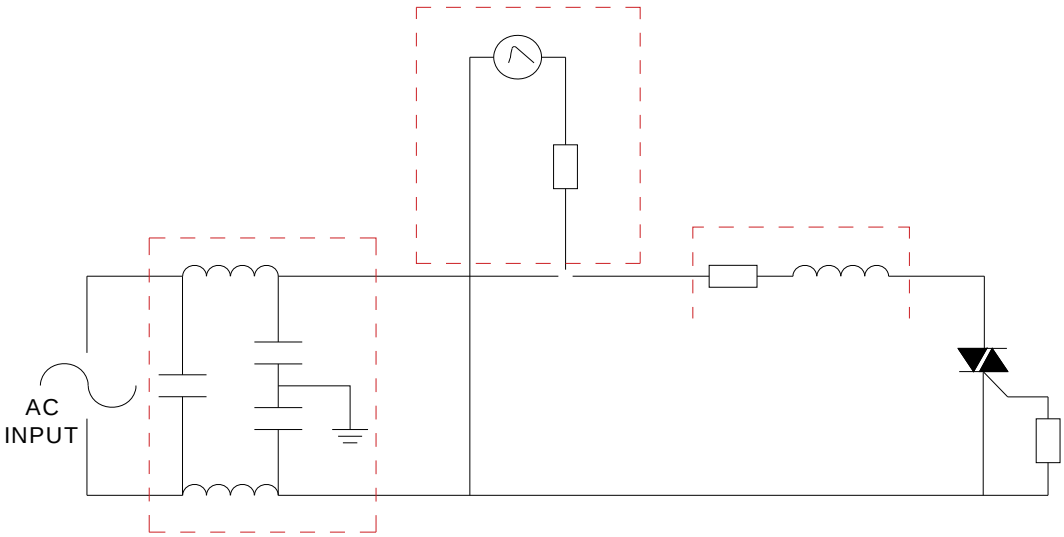


FIG.2: RMS on-state current versus case temperature

FIG.7 ÖTest circuit for inductive and resistive loads to IEC-61000-4-5 standards



Order code	Voltage V_{DRM}/V_{RRM} (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery

